

Title (en)

APPARATUS FOR PRODUCING A FILAMENTED AUXILIARY DISCHARGE FOR AN APPARATUS FOR PRODUCING X-RADIATION AND PARTICLE RADIATION AND ALSO FOR A FUSION REACTOR WITH THE APPARATUS FOR PRODUCING X-RADIATION AND PARTICLE RADIATION AND METHOD FOR PRODUCING X-RADIATION AND PARTICLE RADIATION

Title (de)

VORRICHTUNG ZUM ERZEUGEN EINER FILAMENTIERTEN HILFSENTLADUNG FÜR EINE VORRICHTUNG ZUM ERZEUGEN VON RÖNTGENSTRAHLUNG UND PARTIKELSTRAHLUNG SOWIE FÜR EINEN FUSIONSREAKTOR MIT DER VORRICHTUNG ZUM ERZEUGEN VON RÖNTGENSTRAHLUNG UND PARTIKELSTRAHLUNG UND VERFAHREN ZUM ERZEUGEN VON RÖNTGENSTRAHLUNG UND PARTIKELSTRAHLUNG

Title (fr)

DISPOSITIF DESTINÉ À PRODUIRE UNE DÉCHARGE AUXILIAIRE À FILAMENTS POUR UN DISPOSITIF DESTINÉ À PRODUIRE DES RAYONS X ET UN RAYONNEMENT DE PARTICULES AINSI QUE POUR UN RÉACTEUR À FUSION POURVU DU DISPOSITIF DESTINÉ À PRODUIRE DES RAYONS X ET UN RAYONNEMENT DE PARTICULES ET PROCÉDÉ DESTINÉ À PRODUIRE DES RAYONS X ET UN RAYONNEMENT DE PARTICULES

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Application

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Priority

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Abstract (en)

[origin: WO2019238458A1] The present application relates to an apparatus for producing x-radiation and particle radiation by means of nuclear fusion, comprising: an anode (14) and a cathode (12), which are separated from one another by an insulator (16) and are arranged coaxially in relation to one another, wherein the anode (14) and the cathode (12) are arranged at least partially in a reactor chamber and the cathode (12) has a plurality of cathode electrodes (12); a pre-discharging device for producing a pre-discharge, which forms a low-resistance bypass by way of the insulator (16); a gas, which is contained in the reaction chamber; an electrical pre-discharge source, in particular with high internal resistance, which is connected to the pre-discharging device; and an electrical discharge source, which is electrically connected to the enclosed anode (14) and the cathode (12), wherein a dense, magnetically enclosed plasmoid is produced ahead of anode (14) as the result of an electrical discharge from the electrical discharge source and emits one or more ion beams, one or more x-ray beams or combinations thereof.

IPC 8 full level

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